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| 10/579,970      | 03/07/2007  | Aden Hodzic          | 66376-386-7         | 1986             |

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| EXAMINER |
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LARKIN, DANIEL SEAN

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2856

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05/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/579,970 | <b>Applicant(s)</b><br>HODZIC ET AL. |  |
|                              | <b>Examiner</b><br>DANIEL S. LARKIN  | <b>Art Unit</b><br>2856              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10, 11, 14-17, 19-21 and 24 is/are rejected.
- 7) ☐ Claim(s) 12, 13, 22, and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 13 February 2009. These drawings are acceptable.

### ***Claim Objections***

2. Claims 10-17 and 19-24 are objected to because of the following informalities:

Re claim 10, claim line 7: The phrase -- at least one -- should be inserted prior to both occurrences of the term "analysis unit". Claim lines 4 and 5 have previously recited "at least one analysis unit".

Re claim 12, claim line 3: Is this "analysis unit" the covered by the "at least one analysis unit" previously recited in claim 10, claim lines 4 and 5? Should the article "an" be corrected to read -- the at least one --?

Re claim 13, claim line 3: The phrase -- at least one -- should be inserted prior to both occurrences of the term "analysis unit".

Re claim 14, claim line 2: The phrase -- at least one -- should be inserted prior to the term "analysis unit".

Re claim 20, claim line 2: The phrase -- at least one -- should be inserted prior to the term "analysis unit".

Re claim 22, claim line 6: The phrase -- at least one -- should be inserted prior to both occurrences of the term "analysis unit". Claim lines 4 and 5 have previously recited "at least one analysis unit".

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Re claim 22, claim lines 11 and 12: Is this “analysis unit” the covered by the “at least one analysis unit” previously recited at claim lines 4 and 5? Should the article “an” be corrected to read -- the at least one --?

Re claim 23, claim line 7: The phrase -- at least one -- should be inserted prior to both occurrences of the term “analysis unit”. Claim lines 4 and 5 have previously recited “at least one analysis unit”.

Re claim 23, claim line 12: The phrase -- at least one -- should be inserted prior to the term “analysis unit”.

Re claim 24, claim line 8: The phrase -- at least one -- should be inserted prior to the term “analysis unit”. Claim line 6 has previously recited “at least one analysis unit”.

Re claim 24, claim line 9: The phrase -- at least one -- should be inserted prior to the first occurrence of the term “analysis unit”. Claim line 6 has previously recited “at least one analysis unit”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by DE 19607506 (Wendt).

Wendt discloses a device for measuring exhaust gas from an engine, comprising:

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at least one exhaust gas supply line connectable to the exhaust system of a combustion engine and which supplies at least one measuring branch, each provided with at least one analysis unit, wherein a filter/scrubber (6) is provided upstream of the analysis unit, the filter/scrubber comprises filter material that is selective with regard to gaseous hydrocarbons.

NOTE: The phrase “test stand for engines and vehicles for analyzing exhaust gases of a combustion engine” has not been given patentable weight because the claim provides no limitations that expressly set forth the structure of the test stand. The claim appears to be directed solely to a measuring device for analyzing exhaust gases of a combustion engine, which Wendt discloses.

5. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by EP 848250 (Takahashi et al.).

Takahashi et al. disclose a gas sensor for diagnosing malfunction of an exhaust gas purifying apparatus, comprising: at least one exhaust gas supply line connectable to the exhaust system of a combustion engine and which supplies at least one measuring branch, each provided with at least one analysis unit (1), wherein a filter (4) is placed between components of the analysis device (1) and is selective with regard to gaseous hydrocarbons.

NOTE: The phrase “test stand for engines and vehicles for analyzing exhaust gases of a combustion engine” has not been given patentable weight because the claim provides no limitations that expressly set forth the structure of the test stand. The claim

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appears to be directed solely to a measuring device for analyzing exhaust gases of a combustion engine, which Takahashi et al. disclose.

6. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by US 3,927,979 (Byrne et al.).

Byrne et al. disclose an apparatus for measuring the carbon monoxide and reactive hydrocarbon content of a gas, comprising: at least one exhaust gas supply line connectable to the exhaust system of a combustion engine and which supplies at least one measuring branch, each provided with at least one analysis unit (18), wherein a filter/trap (26) is located on the output side of the at least one analysis device (18) and is selective with regard to gaseous hydrocarbons.

NOTE: The phrase “test stand for engines and vehicles for analyzing exhaust gases of a combustion engine” has not been given patentable weight because the claim provides no limitations that expressly set forth the structure of the test stand. The claim appears to be directed solely to a measuring device for analyzing exhaust gases of a combustion engine, which Byrne et al. disclose.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10, 11, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,927,979 (Byrne et al.) in view of DE 3812417 (Brahm).

With respect to the limitations of claims 10, 11, and 15, Byrne et al. disclose an apparatus for measuring the carbon monoxide and reactive hydrocarbon content of a gas, comprising: at least one exhaust gas supply line connectable to the exhaust system of a combustion engine and which supplies at least one measuring branch, each provided with at least one analysis unit (18), wherein a filter/trap (26) is located on the output side of the at least one analysis device (18), the filter/trap (26) comprises filter material, such as a silicate, that is selective with regard to gaseous hydrocarbons.

Byrne et al. fail to disclose that the filter device consists of a disposable cartridge,

Brahm discloses a disposable compressed boron silicate fiber filter for filtering air. The filter is described as cheap and may be thrown away after an assembly holding the filter is dismantled. Providing a disposable filter casing would have been obvious to one of ordinary skill in the art as a means of allowing an operator to replace an unsuitable filter for a new one without having to replace the support structure, which eliminates waste.

With respect to the limitation of claim line 20, Byrne et al. disclose that the analysis unit comprises a sensor for determining the oxygen content of the exhaust gas.

9. Claims 10, 11, 14, 16, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 848250 (Takahashi et al.) in view of US 5,969,623 (Fleury et al.).

With respect to the limitations of claims 10, 11, and 14, Takahashi et al. disclose

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a gas sensor for diagnosing malfunction of exhaust gas purifying apparatus, comprising: at least one exhaust gas supply line connectable to the exhaust system of a combustion engine and which supplies at least one measuring branch, each provided with at least one analysis unit (1), wherein a filter (4) between components of the analysis device (1) and is an integral part of the analysis unit, the filter (4) comprises filter material, such as a zeolite, that is selective with regard to gaseous hydrocarbons. Takahashi et al. fail to disclose that the filter device consists of a disposable cartridge, a cartridge with a refill set, or a refillable cartridge.

Fleury et al. disclose a gas alarm, comprising a gas sensor for sensing carbon monoxide with a filter (14, 3, 109) integrally attached to the sensor, as shown in the figures, Figures 1, and 7-9. Fleury et al. disclose that the filter is comprised of a zeolite that is held within a casing (2, Figure 7) between two screens (4, 4', Figure 7), and can be made in powder form or pellet form, which would appear to suggest that casing/cartridge is disposable or refillable. Providing a disposable filter casing or refillable casing would have been obvious to one of ordinary skill in the art as a means of allowing an operator to replace an unsuitable filter for a new one or to provide new filtering material for used and worn out filter material without having to replace the casing, which eliminates waste.

With respect to the limitations of claims 16 and 17, Fleury et al. disclose that the filtering material can take the form of pellets having a diameter of 1.5 millimeters in size or pellets on the order of 3-6 millimeters, depending on the particular application.



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With respect to the limitation of claim line 20, the analysis unit comprises a sensor for determining the oxygen content of the exhaust gas.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,927,979 (Byrne et al.) in view of DE 3812417 (Brahm) as applied to claim 10 above, and further in view of US 5,690,099 (Abramov et al.).

Byrne et al. in view of Brahm disclose all of the limitations of the base claim; however, the combination fails to disclose a dust filter on at least the output side.

Abramov et al. disclose a canister containing for absorbing carbon dioxide in air, whereby the contents of the canister (10) are held within the canister using a pair of screens (20) and a pair of dust filters (22). Providing a cartridge/canister having a dust filter located at least at the output side would have been obvious to one of ordinary skill in the art as a means of containing the loose material within the canister as well as containing the dust within the canister, rather than passing the dust to the analysis unit, which would contaminate or damage the analysis unit.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 848250 (Takahashi et al.) in view of US 5,969,623 (Fleury et al.) as applied to claim 10 above, and further in view of US 5,690,099 (Abramov et al.).

Takahashi et al. in view of Fleury et al. disclose all of the limitations of the base claim; however, the combination fails to disclose a dust filter on at least the output side.

Abramov et al. disclose a canister containing for absorbing carbon dioxide in air,

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whereby the contents of the canister (10) are held within the canister using a pair of screens (20) and a pair of dust filters (22). Providing a cartridge/canister having a dust filter located at least at the output side would have been obvious to one of ordinary skill in the art as a means of containing the loose material within the canister as well as containing the dust within the canister, rather than passing the dust to the analysis unit, which would contaminate or damage the analysis unit.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,927,979 (Byrne et al.) in view of DE 3812417 (Brahm) as applied to claim 10 above, and further in view of US 6,862,927 (Craig et al.).

Byrne et al. in view of Brahm disclose all of the limitations of the base claim; however, the combination fails to expressly disclose that the measuring device is a test stand for a vehicle

Craig et al. disclose a device for measuring the response of filters to diesel engine exhaust, whereby the engine is located on a vehicle test stand. Providing a test stand to measure components related to a combustion engine would have been obvious to one of ordinary skill in the art as a means of providing a controlled environment for testing components without having to utilize or buy an entire vehicle.

13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 848250 (Takahashi et al.) in view of US 5,969,623 (Fleury et al.) as applied to claim 10 above, and further in view of US 6,862,927 (Craig et al.)

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Takahashi et al. in view of Fleury et al. disclose all of the limitations of the base claim; however, the combination fails to expressly disclose that the measuring device is a test stand for a vehicle.

Craig et al. disclose a device for measuring the response of filters to diesel engine exhaust, whereby the engine is located on a vehicle test stand. Providing a test stand to measure components related to a combustion engine would have been obvious to one of ordinary skill in the art as a means of providing a controlled environment for testing components without having to utilize or buy an entire vehicle.

#### ***Allowable Subject Matter***

14. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 22 and 23 are objected to, but would be allowable if corrected in accordance with the suggestion made above in paragraph 2.

#### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

The prior art to US 4,678,568 (Goldman et al.) discloses a multiuse aquarium

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maintenance system having a filtering system comprised of case (5) holding a filtering material. The filtering material may be loosely packed into the case or may be in the form of filter material cartridges. Additionally, the cartridge filter (27) may be comprised of zeolite. It also appears from the drawing figures, Figures 4a and 4b, that the filter material is disposable or the case may act as a cartridge for holding loose material that may be refilled.

The prior art to US 6,908,588 (Stinson et al.) discloses a fountain solution recycling system for commercial printers, comprising a cartridge (26) having a housing containing a natural zeolite filter material. It appears from the drawing figures, Figures 1 and 2, that the cartridge (26), as well as the filter material, may be disposable or the cartridge (26) may be refilled.

The prior art to US 3,765,842 (Purt) disclose a fire alarm signaling device, comprising a plurality of filters (8, 9 Figure 1) or (21, 24, 26, Figure 2) upstream of a hydrocarbon analyzer (10). In Figure 1, the filters include a selective filter (8) for removing dust, water, and/or carbon dioxide and a filter (9) used to remove hydrocarbons and hydrogen sulfide. As shown in Figure 2, the first filter (21) is a mechanical dust filter followed by a silica gel filter (24) to absorb various hydrocarbons.

The prior art to US 6,159,363 (Collins et al.) discloses a gravity-flow water filter cartridge, whereby the filter cartridge is composed of silicate adsorbents, col. 2, lines 63-65.

The prior art to US 5,340,388 (Breton et al.) discloses a process for preparing an ink composition by treating the dye with a zeolite. Breton et al. further disclose that

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zeolites are available in a variety of sizes ranging from about 40 microns to millimeters in diameter, col. 3, lines 38-41. Additionally, Breton et al. disclose that the zeolite filter may be provided in a disposable ink container or in the delivery system of the printing apparatus, such that if the filter is in the disposable container, it is disposed of and replaced each time the container is disposed of and replaced. Alternatively, if the container is not disposable and must be refilled, the filter can be replaced or regenerated periodically and restore its function.

The prior art to US 6,939,396 (Petersson et al.) discloses an ambient air pollution trap, comprising a hydrocarbon absorbing filter (8) containing zeolite integrated with a replaceable air filter (5), col. 4, lines 37-43.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL S. LARKIN whose telephone number is (571)272-2198. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Larkin/  
Primary Examiner, Art Unit 2856  
01 May 2009